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## THE EXPERIENCE WITH LAND SETTLEMENT

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### ABSTRACT

*Land settlement is one of the major, if not the main, rural development activities at the Kenya Coast. Since independence 16 settlement schemes have been started with a total of 17,000 plots for an estimated 135,000 inhabitants. The historical background of population and settlement in the Coast are reviewed together with land tenure and land allocation procedures. The experience with the schemes in Kwale and Kilifi Districts is discussed together with the more recent schemes in Lamu District. The failure of the – largest – scheme at Magarini is discussed in view of a combination of constraints namely the marginal environment as well as inappropriate technology that was used (in particular affecting water and labour supply) together with land tenure problems and project management issues. Reviews of farm characteristics at other schemes also point at farm labour as a major bottleneck. The issue is raised of the optimal plot size that is given out; plots, so far, have been larger than the customary holdings in the rural areas. Regarding Kenya's land policy, the fundamental question remains whether the primary objective is population settlement or agricultural development.*

### INTRODUCTION

In 1891, William FitzGerald, a young company officer, took charge of several plantations that had been confiscated by the Sultan of Zanzibar from the previous owner, Suliman bin Abdullah, and that had recently been acquired by the Imperial British East Africa Company. He was impressed by the size and potential of the eleven plantations near Magarini Hill which produced a variety of tropical crops that could stand the comparison with plantations in India and Ceylon. He was enthusiastic about the agricultural potential of the

region and had many suggestions for increasing production. The major problems for agricultural development were hostile raids from neighbouring tribes but also, significant in view of later developments, finding sufficient labour among the native population (FitzGerald 1898).

In 1976 AIDAB, the Australian development agency, started a large development project in the same area, the Magarini Settlement Project. The objective of the project was to bring the Australian expertise in dryland farming to Kenya and to settle several thousand Giriama families in

this hitherto sparsely populated region. Within a few years severe constraints were identified as regards water supply and labour availability resulting in serious doubts about the project, although the Australian support continued until 1988. In that year, AIDAB withdrew its direct support after spending more than \$10 million (Porter, Allen & Thompson 1991).

In between lies almost a century of experience with land settlement and agricultural development at the Kenyan Coast. Questions of population settlement and land ownership have always had grave political importance in Kenya because of the history of European settlement, but also because of the fact that only a quarter of the country is suited for rain-fed agriculture. At first, the competition for land was conceptualised in terms of expatriate owners versus Africans and was an important issue in the struggle for independence. Lately, land issues have again come to the fore in the ethnic clashes where the indigenous population threatens 'immigrants' from elsewhere in the country. This is very different from the expectations at Independence in 1963 when a large programme of settlement was started on farms that had been taken over from expatriate settlers. One of the first programmes was the Million Acre Scheme in the 'White Highlands' that received considerable attention from politicians and researchers alike. Less attention was given to the Kenya Coast and the settlement schemes which were initiated there in the 1960-70s. By and large, there were few white settlers in Coast Province although there were large derelict plantations that were largely under Arab ownership. As late as ten years after Independence, a committee was appointed that had to advise on land ownership in the ten-mile coastal strip (Kenya 1978).

By that time, though, settlement had already

started in the Tezo and Mtondia schemes in Kilifi District. Even these were not the first schemes at the Coast; earlier schemes at Gede and in the Shimba Hills were started as far back as 1939 and 1954, respectively. Since Independence, the settlement schemes have been the major rural development activity at the Coast with about 17,000 demarcated plots that are intended to settle as many as 135,000 people. The question is what the settlement effort has achieved and what can be learnt from it.

#### SETTLEMENT IN KENYA

In many African countries settlement schemes have been established with the aim to settle displaced persons or to provide landless families and squatters with land. In addition, settlement schemes are often regarded as a means to increase agricultural production and to further rural development through optimal utilisation of physical and human resources. In Kenya, the transfer of expatriate-owned farms began a few years before Independence. In retrospect, the most important characteristic of the process was not the transfer from European to African ownership but the break-up of many large farms in smallholder units, although there was considerable variety in types of settlement. From the very beginning, the settlement policy of the government of Kenya had to serve political as well as development objectives. The land transfer programme was a means of settling the landless and ease the population pressure in the native reserves. On the other hand, the government was aware of the risks and the need to ensure national agricultural production and opted for two different types of settlement schemes, the so-called high- and low-density schemes. The low-density schemes were meant for experienced African farmers who were issued 100 acre plots and who were expected to

make a substantial cash income from farming (K&250/year). The high-density schemes, on the other hand, were meant for the starting farmers without farming expertise, including the landless. Plots of about 25 acres were issued to provide the settlers with sustenance and a modest cash income (K&25-K&70/year; although even these holdings were considerably larger than customary in the reserves).

Despite these efforts, the pressure on land did not subside and squatters were an increasing problem. A special commissioner was appointed in 1965 at the Ministry of Agriculture to arrange for settlement of squatters in what later became Haraka schemes, established on abandoned or mismanaged freehold land (Abrams 1979). These schemes were meant to control the wild squatting that was occurring. The Haraka schemes were initially organised under the Ministry of Agriculture; in 1975 they were transferred to the Ministry of Settlement. The Haraka schemes are an important characteristic of settlement at the Coast and from the very beginning this had the effect that plot sizes in the coastal schemes were smaller than up-country (although still sizeable compared with plots elsewhere in the Coast).<sup>1</sup>

By 1975, a total area of 581,500 ha in the 'White Highlands' had been transferred to small-holder tenants. In addition, some 600,000 ha had been transferred through private sales. This included large farms under African ownership but also so-called group farms, which was another way of subdividing the land but not under the supervision of the Department of Settlement. The settlement experience in Kenya did feed into academic debates about dependency and peasantisa-

tion (Leo 1984). Development workers have tried to learn from the experience to decide on the optimal size of the holdings, the degree of support needed and the preferred form of productive organisation.

Settlement schemes differ with respect to their size, plot arrangement, the degree of government intervention in the management of the scheme, the type of commodities produced by the settler farmers as well as the organisation of production. The majority of schemes in Kenya, certainly in Coast Province, consist of schemes with individual holdings where government intervention is limited to physical planning, scheme layout and the selection of the settlers; the development costs are relatively low.<sup>2</sup> Farming decisions are taken by the settlers and any official control and assistance is limited in scope and time. The agro-support and social services provided to the settlers are generally similar to those supplied to the farming population in general. The aim is to incorporate the scheme finally into the local administration and the government services of the different ministries concerned. Contradictory opinions have been voiced about the conditions at these schemes. The scheduled tenants were regarded either as the lucky few in a country beset by land problems or as people without suitable farming experience who were left to their own devices and given too little development assistance (Leys

1 In addition, other types of settlements exist which are of less interest in the present context: Shirika schemes, assisted-owner schemes, compassionate farms, large-size farm units, and Harambee farms (Hazlewood 1985).

2 Kenya also knows schemes with a greater degree of government intervention and higher capital investments. Obligatory cultivation of certain (cash) crops and mandatory marketing arrangements enable recovery of development costs and ensure a certain level of crop production. Like the individual holding scheme, the farm units are small-sized, but farmers are commonly restricted in their freedom to manage the holding. In this category there are a number of irrigation schemes which resort under the Ministry of Agriculture and the National Irrigation Board (NIB). There is one such NIB scheme in the lower Tana area.

1975; Heyer & Waweru 1976).

#### COAST POPULATION

By the end of the eighteenth century the three main population groups in the Kenya Coast were Arabs, Swahili and Mijikenda (see Middleton, Chapter 8). The Arabs and Swahili were mainly concentrated in the towns and lands of the coastal strip. The Mijikenda constituted the major part of the population and were either living more inland or working as slaves or labourers on the Arab-Swahili plantations. The economy of the various Mijikenda groups was mainly based on agriculture. In addition, they were involved in the long and short distance trade between the coastal towns and the interior. These trade activities increased considerably during the first half of the nineteenth century. As a result, young Mijikenda men were able to leave the homes of their elders and many settled nearer to the coast. In the nineteenth century the original settlement pattern, concentrated in *kayas*, changed to a more dispersed form of habitation (Spear 1978).

However, the Mijikenda were largely prevented from occupying the rich coastal lands. The political and military strength of the Arab and Swahili occupants of the coastal plain hindered the Mijikenda in settling there. With the end of the overseas slave trade, landowners on the East African coast had started to develop extensive plantations based on slave labour. During the second half of the nineteenth century, the Arab-Swahili plantation agriculture became the mainstay of the coastal economy. The plantations produced export crops, mainly grain and coconuts, as well as food for home consumption (Salim 1973). Due to these developments, the Mijikenda ceased to be the main suppliers of food (grain) to the coastal towns and also lost their position as middlemen in the coastal trade. After the final aboli-

tion of slavery in 1907, the Arab and Swahili landowners were no longer able to find suitable labour to cultivate their lands. As a result, the plantation economy declined, large tracts of land remained idle and many Mijikenda from the drier hinterland joined ex-slaves living on non-productive plantations. The colonial government was never able to completely control the influx of Mijikenda in the coastal lands and throughout the colonial period squatters were found on many former plantations (Cooper 1981; Cooper, Chapter 9, this volume). After Independence, the migration of people from the hinterland to the coastal plain only increased. Many settled on unused parts of freehold farms and estates or on state-owned land. It is these lands that were first selected as settlement areas by the government in the post-independence period.

#### LAND ALLOCATION

The ten-mile coastal strip was legally under the sovereignty of the Sultan of Zanzibar but administered by the colonial administration. After the abolition of slavery in 1907, the Arab and Swahili landowners from the coastal towns allowed Mijikenda squatters on their plantations to grow food and to maintain the valuable coconut trees. This situation changed again after the introduction of the Coast Lands Settlement Act in 1908, whereby freehold titles were issued to individuals and companies and abandoned land reverted to the Crown. The colonial administration honoured the Arab titles and most of the Mijikenda land claims in the coastal strip were disallowed. Instead large tracts of infertile and dry land were set aside in the hinterland to become 'native' trustlands.

During the independence negotiations the protectorate status of the coastal strip was separately negotiated (Kenya 1961) and the Kenya government agreed to uphold all titles, as else-

where in the country. Whereas in the highlands many of the settler farms were subsequently bought up and distributed, this has not been the case at the Coast. Many of the former Arab owners were no longer traceable but the local population who had settled on these lands were regarded as squatters even though some had lived on it for more than a generation. They would be at best a 'tenant-at-will' who could be evicted at short notice without being compensated for any land improvements or any permanent crops (Mbithi & Barnes 1975). Although these squatters have the right to usufruct, they are not entitled to title deeds. Over the long-term, however, the policy objective of the government has been to allocate plots to the residents. Land registration and adjudication are necessary steps in this process. The registration of land is still in progress at the Kenya Coast. In the coastal strip and the inland hills most of the land has been adjudicated but title deeds are often delayed.

Access to land and land rights among the Mijikenda were traditionally arranged according to customary law, whereby land became the property of the individual who first cleared and cultivated it. Property rights were recognised even if the land was temporarily abandoned and left to revert to bush. An important characteristic of land tenure was the distinction between ownership of the land, ownership of the trees and usufruct i.e. the right to dispose of the crops. More recently, land tenure reform and commoditization have discouraged the separate ownership of land and trees (Ciekawy 1988).

In the case of settlement schemes, government land, trustland or otherwise acquired land is designated for settlement by the Ministry of Lands and Settlement and a development plan is prepared (Kenya 1994). Official procedures prescribe that next the schemes are advertised. Applications

are processed by the respective Plot Allocation Committees consisting of government officials (district officers, settlement officers) and a selection of elders and local dignitaries. The Allocation Committees are expected to use certain criteria (such as preferential treatment of the landless or of local applicants) but otherwise have considerable discretion. The experience is that favouritism inevitably plays a role and that direct allocations by the ministerial headquarters to politically well-connected individuals also occur. The district settlement officers have incomplete registers and papers on certain transfers are kept at headquarters in Nairobi. Often such owners have no intention of settling but are interested for speculation purposes or simply the desire to own such assets. Interests for reasons of land speculation are firstly related to the location of the scheme itself and secondly to the location of the plots within the scheme. The nearer to planned urban or hotel development the more attractive plots are, but also roadside plots and, so-called, first- and second-row (beach) plots are in demand.

Although facts are scarce, inspection of the records at the respective district settlement offices in 1992 learned that only 3.5% of the plots in three established schemes were registered in the name of an owner of non-coastal ethnic origin (Table 21.1). This may be an underestimate because the 25% plots that were not occupied were not included in the survey but still the figure is not as high as sometimes feared. It was, however, quite common to find the plot registered in the name of a coastal owner with the actual resident being someone else, either being a renter or a squatter, and these cases amounted to more than 50% of the residents, but again the large majority of them were of coastal origin. This is not to deny that there are certain schemes which have a much higher rate of non-coastal owners, notably

Table 21.1 Ownership of plots in selected schemes by residency and ethnic origin, 1985/92 (%)

	Resi- dent (N=164)	Non- resident (N=63)	Un- known (N=52)	Total (279)
Mijikenda	91	83	-	72
Arab-Swahili	2	11	-	4
Coast, other	4	-	-	3
Non-coastal, Kenyan	2	5	-	3
Asian-European	-	2	-	0.5
Unknown	-	-	100	19
Total	100	100	100	100

Sources: Records at District Settlement Offices; additional data for Mtwapa, Roka and Ukunda from Hoorweg *et al.* 1991.

Diani (an estimated 50%) and Lake Kenyatta which were, at some stage, designated for settlers from up-country.

In Kwale and Kilifi Districts the tenants were initially charged rent for their plot. In 1978 this was replaced by a system of landloans which included the purchase price of the plot (Ksh.5,650 for a 12 acre plot in Kilifi). After payment of a nominal sum for land charges (Ksh.25 initially), settlers were given a 'Letter of Allotment'. After paying the landloan and all other outstanding debts (such as development loans<sup>3</sup>), the tenant will be issued with a 'Letter of Discharge' for presentation to the Survey Department. Once the Survey Department has finished title mapping, the tenant can receive his 'title deed'. In case title mapping has not been completed, the tenants can be issued a 'Certificate of Outright Purchase'. This can serve as proof of ownership and later be turned into a title deed. After the Letter of Discharge has been issued, relations between the Department of Settlement and the individual set-

3 Development loans were issued in kind and had to be paid back over a 10 year period. Seasonal loans were also given in kind but had to be paid back the same year.

tlers have essentially come to an end.

As long as it is involved, however, the Department of Settlement does not allow sub-sales or subdivision and will only allow an additional owner to be added to the register. This is helpful in case of sons inheriting from their fathers but it does discourage sales. Selling a plot outright has to be approved by the Land Control Board. Plots not being developed can be repossessed by the Department of Settlement and given out to new tenants. Re-allocation can also be decided at headquarters in Nairobi. The latter often seems to operate quite independently, often not informing the Land Control Board or the District Settlement Office so that uncertainty exists about the ownership of such plots. In some cases, squatters may have settled in the meantime on the neglected plot and in that case it is left to the new tenants to take action through the courts to evict them.

#### PRE-INDEPENDENCE SETTLEMENT

Agricultural settlement schemes at the Coast date back to the beginning of the century. In 1911 and 1913, a small number of landless ex-slaves and destitutes were settled on some 5,700 ha south and north of the Kilifi Creek in six demarcated areas in Mavueni, Mtanganyiko, Tezo, Mida, Mikomboni and Pumwani (Kenya 1962). In 1937 the Department of Agriculture faced increasing numbers of squatters in the area between Kilifi and Malindi who were reportedly attracted by the possibilities of cotton cultivation. The perceived danger was that many of the Wanyika squatters would continue the shifting cultivation to which they were used and would move on after two or three harvests. It was feared that, as a result, the light sandy soils would rapidly deteriorate. Since squatters had no security of tenure, they had no inducement to take care of the land – notably in the way of soil conservation – they were using. To



deal with this, the colonial government set aside 4,000 ha in 1938 near Gede to settle about 850 families in a scheme that also had to serve as demonstration project and with which the other existing settlements were to be brought in line (Table 21.2). The farmers were given 12 acres (4.8 ha), calculated as follows: six acres for annual crops, three acres for perennial crops such as coconut palms, cashew trees and fruit trees, and three acres for fodder crops, miscellaneous trees and the home compound. A start was made with people already squatting on Crownland who were given security under condition that no fragmentation of the holding would later occur and that suitable methods of soil conservation would be used under supervision of the agricultural officers (Humphrey 1938/39). During the Second World War implementation slowed down but in the early 1950s the scheme was expanded with another 10,500 ha in Mikomboni with capacity for 2,000 settlers. The scheme was integrated in the local administration in the 1960s.

On the south coast the colonial administration started with the settlement of farmers in the Shimba Hills in 1952 (Table 21.2), a scheme of about 16,000 ha but with rather different objectives (Palmer 1971). The scheme was an endeavour at agricultural development in a remote area and, albeit smaller, comparable with the Gezira scheme in neighbouring Sudan and the groundnut schemes in Tanzania. In these schemes and the later settlement schemes in Kenya around the

time of independence, the farming experience of the settlers was reason for concern; at one stage, there were even plans for training of the future settlers in the Shimba Hills. The first settlers experienced great problems, not the least because the area turned out to be less suitable for farming than expected (Makin 1968 in Palmer 1971). In addition, there was tsetse-fly infestation, destruction of crops by wildlife, and a high incidence of illness, in particular malaria.

Population groups from the Coast and over-country were settled in this scheme, the majority coming from overpopulated areas in Machakos and Kitui Districts. But the settler population did grow only slowly in size. Disappointed, many of the early settlers abandoned the scheme (notably a group of Nandi settlers) or tried to sell their plots, and it took a long time for the population to stabilise. In 1961 there were still only 166 settlers but by that time the inflow accelerated and in 1965 nearly the full complement was reached with 1,250 settlers and their families. By that time, the Kamba were largest in number (57%), the Mijikenda next with 33% (Palmer 1971).

Households were initially issued plots of 4.8 ha but there is some confusion about this figure. The planners had reportedly reserved land for communal grazing but this did not work out and settlers seem to have divided the land amongst themselves. The plot size finally averaged 12 ha. The planners had given detailed attention to the management of the plot with annual crops such as maize, cowpeas, cassava, cotton and groundnuts. The cultivation of tree crops was discouraged because of tsetse-fly infestation and it was only later that the Department of Agriculture started to introduce tree crops. In 1968 it was estimated that only 10-35% of the land was actually under agricultural production, the rest being left fallow. Although initial expectations for the cash income

Table 21.2 Pre-Independence settlement schemes

	Starting date	Size (ha)	No. plots	Plot size (ha)
Gede	1937	4,000	850	4.8
Shimba Hills	1952	16,000	1,270	12.0

Sources: Humphrey 1938/39; Palmer 1971

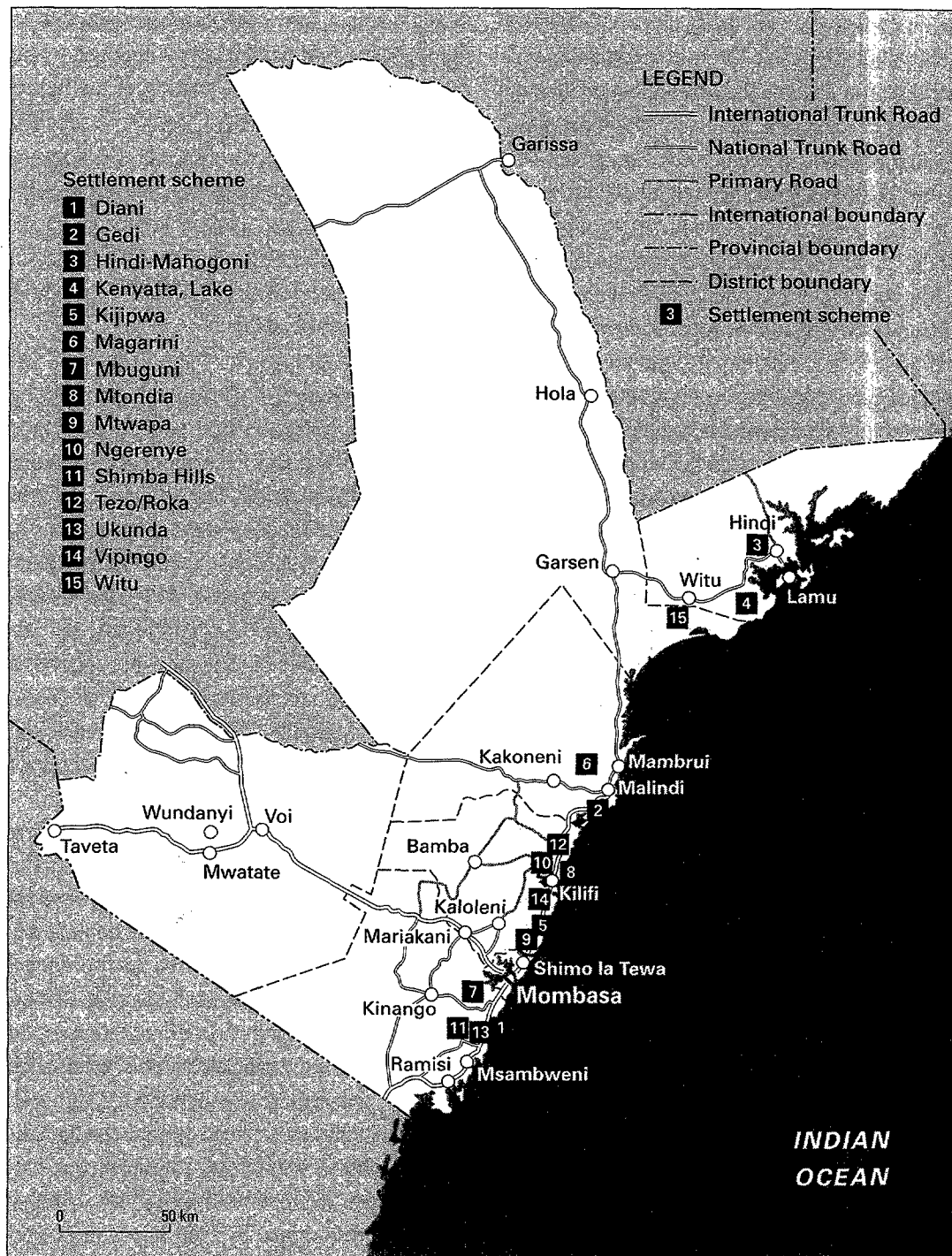


Figure 21.1 Settlement schemes



**Table 21.3** Post-Independence settlement schemes in Kwale District

	Starting date	Size (ha)	No. plots	Plot size (ha)
Diani	1978	728	446	2.0
Golini	1985	290	102	2.0
Mbuguni	1978	2,400	787	2.4
Sabharwal	1968	120	20	4.8
Tembo Springs	1968	202	26	4.8
Ukunda	1968	607	123	4.8

Source: Various reports by the Department of Settlements

of the settlers were as high as K&200/year, a sample survey in 1968 found that the true income was K&50/year which is much nearer to the figure used in the planning for the high-density schemes elsewhere in the country. But at the time a quarter of the settlers already reported considerable income from 'outside sources' that surpassed their farm income (Palmer 1971). The repayment of loans and fees was a continuous problem and there were high rates of defaulting payments. The scheme was merged with the regular, local administration in the 1960s.

#### POST-INDEPENDENCE SETTLEMENTS

In the early years after independence, new settlement schemes were established in order to cope with the increasing squatter problem and to bring mismanaged or unused tracts of land into use. By 1985, there were 13 settlement schemes in Kwale and Kilifi Districts while efforts had also started in Lamu District. Figure 21.1 shows the location of the various schemes discussed in this chapter.

The five existing settlement schemes in Kwale District, i.e. Diani, Ukunda, Mbuguni, Sabharwal and Tembo Springs, were started under the Haraka programme (Table 21.3). They cover a total of about 4,050 ha and can accommodate 1,400

farming families. Ukunda, Tembo Springs and Sabharwal were established in 1968 by the Commissioner for Squatters; Diani and Mbuguni followed in 1978. The small scheme at Golini, in the hills near Kwale town, incorporated squatters already living in the area. Schemes in Kilifi District include Mtwapa, Tezo-Roka, Mtondia, Ngerenyi and Vipingo (Table 21.4). In 1972, the schemes came under the Department of Settlement and they cover a total area of 14,500 ha divided into some 3,400 plots. Indigenous squatters already residing on the land and landless agricultural labourers were the groups provided with land. A smaller number of settlers came from elsewhere in Coast Province and from other parts of Kenya. In 1982, the Kijipwa settlement scheme was started, south of Vipingo.

Four of the schemes, discussed so far, are rather small in size, 350 ha or less. They usually concern subdivision and reallocation among squatters already living there. The eight remaining schemes are larger, up to 6,500 ha; Magarini is again larger. Although often situated within close distance from the coastline, the schemes nevertheless differ considerably in agro-ecological potential and cropping patterns. About half of them are situated in the CL3 zone (coconut-cassava),

**Table 21.4** Post-Independence settlement schemes in Kilifi and Malindi Districts

	Starting date	Size (ha)	No. plots	Plot size (ha)
Kijipwa	1982	350	350	1.0
Magarini	1978	60,000	4,000	6.0/12.0
Mtondia	1962	3,000	235	4.8
Mtwapa	1969	3,986	607	4.8
Ngerenyi	1968	5,236	950	4.8
Tezo/Roka	1962	6,500	1,357	4.8
Vipingo	1974	1,052	260	4.0

Source: Various reports by the Department of Settlements

the others in CL4 (cashewnut-cassava). Soil fertility and the depth of the topsoil are further important variables, the latter being quite shallow for the schemes situated next to the coastline, such as Mtondia, Roka and Diani (see Foeken, Chapter 3). Plot size in the larger schemes is generally 4.8 ha (12 acres) with the exception of the later Diani (2.0 ha) and Kijipwa schemes (1.0 ha). In addition, the ethnic background of resident populations differs. Diani, reportedly, has a high complement of Kikuyu evicted from Tanzania in 1978.

The schemes in Kilifi District received technical support from 1975 to 1985 under the German Assisted Settlement Project (GASP). This assistance concerned the planning and implementation of three major settlement schemes and the provision of grants and loans. The funds were used for co-operative development, input supply, credit and technical assistance. In contrast, the Kwale schemes did not receive donor support.

The experiences with the schemes were mixed and economic conditions at the schemes differ. Mtwapa is economically most developed. Mombasa town is nearby and provides a market for horticultural products, while the buying of plots by comparatively wealthy new owners also offers an impetus for economic activities. On the other hand, in the Mbuguni scheme in Kwale many of the plots have been unoccupied. The same was the case for a long time with the Diani scheme because two sides of the scheme border the access road to the local beach hotels and many plots were acquired for speculative purposes.

#### *Magarini Settlement Scheme*

In 1976, a start was made with the Magarini Settlement Scheme in the Marafa area, in the now Malindi District, a fragile environment with low and unreliable rainfall (Table 21.4). It was supported by AIDAB who were keen to introduce the Austra-

lian expertise in dryland farming. The failure of Magarini scheme has been the subject of a book study (Porter, Allen & Thompson 1991). The following account is taken from this publication.

The scheme was planned to cover about 60,000 ha and to settle some 4,000 families, mostly indigenous Giriama, on 12 ha plots. The project was not only ambitious in size but also in design. The aim was to introduce sedentary farming consisting of food crops and cash crops to sustain the tenant households in a marginal environment; which meant a virtual replacement of existing farming systems. From the very beginning the project was plagued by land tenure problems, insufficient water supplies and shortage of labour. The resident population regarded themselves as the rightful owners of the land while the government considered them as squatters who had to be relocated and who would eventually have to purchase the land on which they were settled.

Existing constraints in water supply and labour availability were to be addressed simultaneously. Groundwater exploration and drilling of bores would solve the former. A decentralised system of local bores and connected hydrants was to bring water within 500 m of each household thus freeing labour for cultivation. Mechanical assistance with scrub clearing and land preparation was foreseen which would further help solve possible labour bottlenecks. However, the aquifers that were identified did not produce sufficient groundwater and many bores malfunctioned. The scrub clearing suffered from mechanical breakdowns and delays and also posed a serious danger of environmental degradation. The settlers, in turn, became less and less co-operative after they experienced severe yield falls after the first harvests and they were unwilling to give up their off-farm activities which they needed to sustain their households. In short, the new farming systems

were not economically viable and project objectives were not realised. After many missions and reviews AIDAB discontinued its direct involvement in 1988 leaving future farmer support to the NGOs that had in the meantime become involved. Apart from the marginal environment, land tenure complications and inappropriate technology, Porter *et al.* (1991:197) also blame the inability of project staff "to hear the warnings of specialists and protest from the people themselves" and, more in general, their reliance on, what the authors call "control-orientation".

#### Household conditions

Sample surveys in 1985 give information about the conditions at some of the other schemes. Settlement tenants were generally better off than households in comparison locations situated in the same agro-ecological zones and they had higher household incomes (Table 21.5). Food consumption, i.e. energy and protein intake, was about 15% above that of the general population (Hoorweg *et al.* 1996). The income improvements consisted of increases in both employment income and farm income.

In both groups more than half the income was from employment but it was substantially higher among the settlement tenants for two reasons: the number of people working in off-farm activities was higher in settlement households (1.4 vs. 1.0) and more of the workers in the settlement schemes were resident at home which means that they could contribute a large part of their earnings to the household.

Farm income among the settler households was higher because more land was being cultivated (Table 21.5). Roughly 1.4 acres was used for additional food crops and the estimated food self-sufficiency was also higher with 49% vs. 67% (Hoorweg *et al.* 1996). However, most of the ex-

tra land (about 4 acres) was used for additional tree crops. Settlers still failed to reach self-sufficiency in staple crops and apparently destined most of the additional land for tree crops. One reason is that this is a way to establish customary rights to the land. Another reason is that the tenant households do not have sufficient farm labour available. Although settlement households were larger in size and had more household labour, this was firstly used in off-farm employment. On average, the production of food crops and tree crops was done with the same amount of labour as among the general population which had

Table 21.5 Income and farm characteristics of settlement tenants and general population, 1985<sup>a</sup>

	Settlement schemes (N=299)	General population (N=150)
<i>Income (Ksh/household/year)</i>		
+ Food crops	3,766 <sup>b</sup>	2,417
+ Tree crops	4,754	829
+ Livestock	493	157
= Farm income	9,013	3,403
+ Employment income <sup>c</sup>	10,659	5,343
= Total income	19,672	8,746
<i>Farm size (acres)</i>		
+ Food crop area	3.4	2.0
+ Tree crop area	6.4	2.3
+ Fallow & other	1.6	0.7
= Total	11.4	4.9
<i>Household labour (adult eq)</i>		
+ Off-farm employment	1.4	1.0
+ Farm labour	2.7	2.8
= Total	4.1	3.8

a) Results for selected settlement schemes (Mtwapa, Roka and Ukunda) and selected locations (Bongwe, Chilulu and Ditsoeni). Data from Hoorweg *et al.* (1991; 1995).

b) N=60

c) Employment income includes regular employment (in government and industry), self-employment (shop-keepers, artisans, traders etc.) and casual employment (in agriculture and industry); figures are corrected for residence of the worker, whether at home or near the place of work.

smaller farms. Consequently it is no surprise that tree crops are preferred since they require less labour.

A breakdown of farm labour and crop cultivation by farm size confirmed this (Table 21.6). With increase in farm size, the available farm labour stayed behind. Where available land differed between the extreme categories by a factor 30, available household labour increased only by a factor 2. Moreover, about two-thirds of this extra labour consisted of men without wage employment but these men will generally not be inclined to assist with the cultivation of food crops. Where the number of trees increased manifold, the cereal harvest increased by only 60%. Also with increasing farm size, more land was left unused and in the holdings of 12 acres and more, an estimated 25% of the land was not under crops. Farm labour, in combination with existing attitudes towards farming, are severely limiting factors. This raises the question whether the customary plot size of 4.8 ha is perhaps too large.

From this perspective, it is not surprising that considerable transfer of land has taken place since the start of the schemes and that this can be regarded as a natural mechanism to adjust farm sizes. In 1985, only half of the tenants in the schemes mentioned in Table 21.6 still availed of

the plot as it was originally issued. Most of the transfers had resulted in smaller holdings. On the other hand, in schemes like Roka and Mtwapa land concentration had also occurred; around 20% of the tenants held more than one plot or the holdings were larger than 12 ha.

#### RECENT EXPERIENCE: LAMU DISTRICT

Mainland Lamu (as distinct from Lamu Island) has experienced an unknown degree of depopulation over the past century as a result of out-migration and political insecurity along the Somali border. In 1885 mention is made of a large area of valuable and highly cultivated land on the mainland which, however, reverted to bush when there was no slave labour available any more (Jackson 1930). On the whole, however, the area has always been thinly populated, with large bush areas and concentrations of wildlife.

In 1974, President Kenyatta gave the start for a large settlement scheme near Mpeketoni on a failed cotton plantation. This scheme, which would eventually have more than 3,000 plots (Table 21.7), is situated in the CL3 zone with about 1,000 mm rainfall per year (see Foeken, Chapter 3). Food crops cultivated include maize, cassava etc. Cash crops include cotton, cashew nuts, bixa and sim-sim. The scheme is situated in

Table 21.6 Farm characteristics of settlement schemes by farm size 1985\*

		All N=299	0-2.9 N=41	3.0-11.9 N=60	12.0 N=141	12.1+ N=57
Household labour (adult eq.)	Off-farm employment	1.5	1.2	1.2	1.4	1.8
	Farm labour; male	1.1	0.4	0.8	1.3	1.7
	Farm labour; female	1.6	1.3	1.5	1.5	2.1
	Total	4.2	2.9	3.5	4.2	5.6
Crop cultivation	Food crops (kg. cereals)	400**	310	270	432	499
	Cassava (no. of plants)	654	475	934	567	702
	Tree crops (no. of trees)	227	27	130	230	464

\* Results for selected settlement schemes (Mtwapa, Roka and Ukunda). Additional data from Hoorweg *et al.* 1991.

\*\* N=60

an isolated area. For many years it could not be reached during the rains when the Malindi-Garsen road was impassable. The early settlers suffered considerable hardship because of poor health conditions, food shortages and crop destruction. The tenants received food relief, there was a shortage of settlement personnel and the infrastructure of the scheme evolved only slowly. The occupancy rate in the schemes was low, particularly in the outlying plots. In 1982 the occupancy had increased to 2,600 tenants (70%). During the early years malaria reportedly ravaged the population but a health survey in 1985 surprisingly failed to find a single case of malaria infestation among 180 residents, while the nutritional status of young children at that time was not below the national average (AMREF 1985).

Some time earlier the situation had probably started to turn for the better, for several reasons. Initial settlers who were not up to the harsh conditions had left disillusioned; it took many years for a core population to stabilise. Also the – mostly Kikuyu – farmers had at best highland farming experience and they needed time to learn to adapt to the dryland conditions. In 1985, GASP shifted field operations from Kilifi to Lamu District. The assistance under the programme consisted of three components, namely infrastructural development (roads, schools, water supply), support for community development activities (women groups, farmer groups) and legal assis-

tance with the land adjudication process. Investments by GASP in Lake Kenyatta have also been considerable since 1985. In 1995 the scheme occupancy was estimated at 100%. In the meantime, a start has been made with an extension of the scheme with the aim to accommodate second-generation settlers.

A farm survey in 1987 found that about 60% of the tenants were not able to meet the costs of living from their farm proceeds (Neunfinger, Schmale & Werner 1987). The average annual farm income was Ksh.4,100 (not including food crops) which is not far from the figure of Ksh.5,200 for tenants elsewhere (Table 21.5). About 20% of the farmers were able to meet their needs through farming and another 20% of the tenants was non-farm dependent. In similar vein, about 70% of those interviewed had additional off-farm income. About 45% earned income through farm labour, another 25% had various types of employment in the non-farm sector. These are high figures for a scheme that is much more remote than the earlier schemes and seems to confirm that the strategy of income diversification of rural households is widespread.

A second scheme was started at Hindi-Mahogoni in 1980. The scheme is situated much closer to Lamu Island than Lake Kenyatta and was more attractive for speculation purposes, which hardly played a role in the latter. At the time when the Hindi scheme started, there were expectations

Table 21.7 Settlement schemes in Lamu District, 1995

	Starting date	Size (ha)	No. plots	Plots occupied	Plot size (ha)
Lake Kenyatta I	1976	17,000	3556	3550	4.0
Lake Kenyatta II	1986	3,000	650	350	4.0
Hindi-Mahogoni	1980	7,200	726	398	4.0/6.0*
Witu I	1989	12,500	1728	700	4.0/6.0*
Witu II	1993	8,000	1400	0	4.0

\* Divided in plots of 4.0 ha (60%) and 6.0 ha (40%).

Source: GASP surveys and estimates



that a naval base and an oil pipe line from the North would be constructed in the area. Although neither of these developments occurred it meant that there was a great interest in the scheme by the public and that quite a number of plots were allotted to dignitaries from Lamu and relatives of civil servants. The scheme has grown only slowly and as of 1994 had an occupancy rate of about 50%, probably below the necessary critical mass to develop a healthy community. Efforts at repossession by the authorities have been difficult and disappointing and mistakes were repeated when the repossessed plots were given out again.<sup>4</sup>

Recently a start has been made with the Witu settlement scheme which is eventually designed to accommodate some 1,700 settler families. The scheme is situated in an area with sparse population; in 1995 there were an estimated 700 farm families including the 300 squatters families that were identified and that have to be included in the new scheme. As in the earlier schemes, conditions are harsh; e.g. wildlife threats which hinder people from walking at night and long distances to reach essential services. The scheme at this stage has experienced problems with patronage (as in Hindi) and with the incorporation of resident squatters who turned out to be more numerous than expected (as in Magarini) and who originate from all parts of the country. In addition, the local population, Bajun and Swahili, has been increasingly insisting on its claims in the new climate of ethnic consciousness and resulting ethnic antagonism that has grown in the country. There exist plans for an extension of 8,000 ha which can accommodate another 1,400 households.

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<sup>4</sup> This information is from internal GASP reports and personal communications of project officers. I want to thank the former project director, Dr. S. Boguslavski, for his gracious assistance.

## DISCUSSION

Several important principles have guided land settlement policy in Kenya since Independence. The first two concern the political need to meet the demand for land among the population and the agricultural need to assure national agricultural production (Hazlewood 1985). The positive experiences since Independence with the productivity of smallholder farming have put the latter concern to rest. The demand for land, however, has grown because of the sustained growth of the population from 10.9 million in 1969 to 21.4 million in 1989. The same population pressure exists in Coast Province and the settlement schemes may eventually accommodate some 135,000 people, or about 13.5% of the total population growth from 1 million (1969) to 2 million (1989) in this part of the country.

Two other principles of government settlement policy concern the objective to stimulate small-scale farming and the requirement of payments by tenants for the land they receive. The structural change of substituting small- for large-scale farming was of paramount importance but the population growth makes it necessary to reconsider the issue of plot size. Usually, the procedure has been for planners to calculate the farm size needed to support an average family. The plot sizes that were initially issued in the high-density schemes were large compared with the customary holding in the former reserves. At the Coast, the plots that were given out were generally smaller, although 4-5 ha (10-12 acres) is again higher than the customary plot size and also more than the 2 ha which Hazlewood (1985) advised. Indeed, the figures presented earlier indicate that the productivity per acre on small farms is higher than on large farms and that on farms of 5 ha (12 acres) and larger, a quarter of the land lies fallow. It has also become evident that most

households in Coast Province rely heavily on income from employment and that this is not because they do not have sufficient land, since the households with large farms are equally involved in off-farm employment. Hazlewood even suggested that some of the earlier schemes should be re-divided but this suggestion is politically unrealistic. Apart from this, a natural process of subdivision is already occurring through inheritance and sales. The former will be accelerated once the second-generation settlers (children born on the schemes) need land for their families. Sales and purchases have also occurred although this used to be discouraged by the administration officers (or at least made difficult), but in view of the above this attitude needs to be reconsidered.

Tenants have been charged obligatory payments for the land issued to them. This was also the case in Coast Province, although the actual amounts charged are relatively modest. Like elsewhere in the country, this requirement has met with disenchantment and opposition. Most tenants, whether or not influenced by political slogans, consider the land rightfully theirs and have no wish to pay. This has led to poor payment rates which, in turn, has held up the processing of title deeds, probably to the detriment of agricultural investments. Hazlewood (1985) correctly argued that if programmes of land transfer are designed for those most in need, non-payment should not be a reason to evict tenants. Rather, tenants should be evicted who are demonstrably misusing their opportunities, i.e. people who fail to develop their plots and leave the land fallow. Since the 1980s the settlement officers in Coast Province, by and large, seem to share this attitude but it has led to counter strategies by tenants who place a 'guard' on the plot to give an appearance of development and to keep squatters away. Another possible strategy is to arrange a mortgage

with the plot serving as collateral, dispossession becoming nearly impossible. Negligent tenants with higher incomes are likely to have more access to these strategies.

A distinction must be made between habitation and cultivation. In some cases, people have not changed their residence but do cultivate their new plots. Sometimes, close relatives, such as brothers, decide to live together in one compound but still cultivate their respective plots separately. How to judge these situations depends on which objective is given priority, namely to settle the landless or to develop the land. It may be objected that people who are living elsewhere apparently own more than one plot and were not landless to start with, which defeats the purpose (however, some people simply prefer to live closer to public amenities).

No systematic knowledge is available about the characteristics of negligent tenants who fail to bring their land under cultivation. It is inevitable that all kinds of people apply for plots and weeding out unsuitable applicants is the responsibility of the allocation committee. Here, experience has learned that favouritism inevitably plays a role together with intervention from high government officers. Choice plots with a view to future economic development usually do not end up in the hands of the ordinary man. Already in 1978 the Maitha commission complained about land speculation in the coastal strip (Kenya 1978: 14). This, of course, was only a precursor to the 'land grabbing' that has since taken on astonishing proportions (see Wolf, Chapter 10).

#### CONCLUSION

The schemes at the Kenya Coast have important differences as regards location. Firstly, there are the schemes near the coastline which are usually not far from urban centres and where part of the

infrastructure already existed but also with large number of squatters; hence, where settlement was also resettlement. Secondly, there are the more remote schemes in empty, at least sparsely inhabited land – as in the Shimba Hills and in Lamu.<sup>5</sup> The experience at the latter schemes is very similar. The first years are extremely difficult with wildlife threats, high incidence of illness and a high turnover of settlers. In nearly all schemes the first decade brought little progress. In Shimba Hills and Lake Kenyatta it took at least 10 years for the population influx to increase, or even longer for the scheme population to reach a critical mass of 60-70% occupancy rate. Considering this, the project life of Magarini from 1978-88 was perhaps on the short side. Magarini, however, also had to cope with other problems such as water supply, inappropriate technology and a reluctant population. Leaving the technical aspects of water supply aside, appropriate technology is something that can be developed over time as the settlers in Lake Kenyatta demonstrated who did set out with little experience of dry farming.

Attitudes toward farming are also an important factor. It is generally recognised that there is a considerable difference in attitudes towards farming between the coastal Mijikenda and some of the up-country settlers, notably the Kamba in Shimba Hills and the Kikuyu in Lake Kenyatta. The latter have a reputation as diligent cultivators and it is also reported that the traditional gender division of labour has changed considerably with men and women working together in the fields in Lake Kenyatta (Kamau 1994). This cannot be expected to happen easily among the Mijikenda

who have a lower appreciation of farming, and who largely adhere to traditional gender roles and traditional division of labour.

Another important constraint is the defaulting of payments by tenants and the slow title deed procedures. These matters need attention and are already included as part of recent technical assistance. On the other hand, once title deeds have been issued, the government loses most of its control over the tenants and negligent tenants can no longer be evicted; but as already mentioned, many of them find ways to escape eviction anyway.

This again raises the fundamental issue of Kenya's land policy, namely which objective prevails: population settlement or agricultural development. It has become increasingly clear that the two are not the same and are often divergent as already realised by the colonial administration. In most of the schemes in Coast Province, the first objective has usually prevailed and perhaps the policy should be taken to its consequence with smaller plots sizes and elements such as plot payments and dispossession abandoned. If schemes serve to meet existing land hunger and are to be developed at minimal costs, expectations for agricultural development should be low.

5 Although not necessarily without owners under customary law, judging from the experience in Magarini where far greater numbers of people claimed land ownership than originally estimated. The same seems to happen in the new Witu scheme where original (Bajun) owners rekindle old ownership claims.

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*Photo 11* Traditional grass house, Kibandaongo, Kwale District.  
(Dick Foeken)

